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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/169,780 10/08/98 KARAKASOGLU

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EXAMINER

ASTORINO, M

ART UNIT	PAPER NUMBER
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3736

4

DATE MAILED:

08/17/99

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/169,780

Applicant(s)
Karakasoglu

Examiner
Michael Astorino

Group Art Unit
3736



☒ Responsive to communication(s) filed on Oct 8, 1998

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-22 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-22 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☒ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 3

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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DETAILED ACTION

Specification

1. Applicant is missing section headings, appropriate correction is required. The following guidelines illustrate the preferred layout and content for patent applications. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

The following order or arrangement is preferred in framing the specification and, except for the reference to "Microfiche Appendix" and the drawings, each of the lettered items should appear in upper case, without underlining or bold type, as section headings. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) Title of the Invention.
- (b) Cross-References to Related Applications.
- (c) Statement Regarding Federally Sponsored Research or Development.
- (d) Reference to a "Microfiche Appendix" (see 37 CFR 1.96).
- (e) Background of the Invention.
 - 1. Field of the Invention.
 - 2. Description of the Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (f) Brief Summary of the Invention.
- (g) Brief Description of the Several Views of the Drawing(s).
- (h) Detailed Description of the Invention.
- (I) Claim or Claims (commencing on a separate sheet).
- (j) Abstract of the Disclosure (commencing on a separate sheet).
- (k) Drawings.
- (l) Sequence Listing (see 37 CFR 1.821-1.825).

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

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3. Claims 11 and 12-14 are rejected under 35 U.S.C. 101 because the applicant recites non-statutory subject matter.

4. Claim 11 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 1 recites that the sensors are mounted on the forehead of the patient. This recites a positive relationship to the human body. However, the human body is non-statutory subject matter and cannot be positively recited. Therefore, applicant should amend the claim to recite that the sensors are adapted to be mounted on the forehead of the patient.

5. Claim 12 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 1 recites that a pulse oximeter carried by the head of the patient. This recites a positive relationship to the human body. However, the human body is non-statutory subject matter and cannot be positively recited. Therefore, applicant should amend the claim to recite that a pulse oximeter is adapted to be carried by the head of the patient.

6. Claim 14 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 1 recites that a sensor for sensing vibrations of the trachea of the patient. This recites a positive relationship to the human body. However, the human body is non-statutory subject matter and cannot be positively recited. Therefore, applicant should amend the claim to recite that a sensor is adapted for sensing vibrations of the trachea of the patient.

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Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 1-16 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

9. In claims 1 and 11, lines 11 and 3 respectively, the applicant recites the limitation, in the vicinity of the nose and in the vicinity of the eyes, respectively. This limitation is indefinite for not specifically disclosing the limits of the claim.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 1-3, 9-13, 15-20 and 22 rejected under 35 U.S.C. 103(a) as being unpatentable over Miles in view of Sullivan et al.

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In regards to claims 1-2 and 17, Miles discloses a sleep monitoring apparatus with a nasal mask (26) and headpiece (figure 2) but Miles does not disclose a acoustical device as a pressure transducer. However Sullivan et al. does disclose a sleep monitor using a acoustical pressure transducer in a acoustical duct. Furthermore it is the examiner's position that it is well known in the art that real time signal can be provided from electrical signals from a patient. It would have been obvious to one in the art at the time of the invention to combine the inventions of Miles and Sullivan et al. to maintain an acoustical system with brain wave monitoring capabilities.

In regards to claims 3, 16 and 18, Miles discloses a plurality of event values that are provided based upon a minimum duration and wherein a respiratory disturbance index plus is ascertained which is based upon the sum of event values divided by the duration of sleep of the patient. Furthermore that the event value has a duration of at least 10 seconds (columns 6-7, lines 17-32).

In regards to claims 9-13, 15, 19-20, and 22, Miles discloses the use of EEG, EOG, a pulse oximeter, body positioning and heart rate sensors in the system to more efficiently diagnose and treating a sleeping disorder (column 7, lines 33-57).

12. Claims 4-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miles and Sullivan et al. as applied to claim 1 above, and further in view of Neumeier et al.

In regards to claim 4, Neumeier et al. discloses that a Helmholtz resonator is well known

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in the art being used as a dampener in acoustical sensors (column 1, lines 64-67). It would have been obvious to one in the art at the time of the invention to combine the inventions of Miles, Sullivan et al. and Neumeier et al. to maintain an acoustical system with brain wave monitoring capabilities.

In regards to claim 5-7, it is the examiner's position that it is well known in the art to maintain a Helmholtz resonator at a frequency of 27 kilocycles to maintain an efficient dampening system in an acoustic transducer. Furthermore that the Helmholtz resonator is made of metal.

In regards to claim 8, Sullivan et al. discloses the use of a microphone (11) mounted in the nasal mask and it would be obvious to combine a dampener, further a Helmholtz dampener into the system. It would have been obvious to one in the art at the time of the invention to combine the inventions of Miles, Sullivan et al. and Neumeier et al. to maintain an acoustical system with brain wave monitoring capabilities.

13. Claims 14 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miles and Sullivan et al. as applied to claims 1 and 17 above, and further in view of Testerman et al.

In regards to claims 14 and 21, Testerman et al. A reference in a analogous art discloses the use of sensors being place next to the trachea. It would have been obvious to one in the art at the time of the invention to combine the inventions of Miles, Sullivan et al. and Testerman et al. to maintain an acoustical system with brain wave monitoring capabilities.

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Conclusion

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Astorino whose telephone number is (703) 306-9067.



M. Astorino

August 16, 1999

Samuel Gilbert
~~Samuel Gilbert~~
Primary Examiner
AU3736